

first electrical contact locations, and extending from the respective first electrical contact location;

a second substrate provided with second electrical contact locations on one side thereof and third electrical contact locations on an opposite side thereof;

the second contact locations facing the first contact locations and each first elongated electrical conductor having a respective second end connected to a respective one of the second electrical contact locations, the second substrate being disassembleable from the first substrate; and

second elongated electrical conductors, each having an elongate flexible shape and a respective first end connected to a respective third electrical contact location of said third electrical contact locations and extending from the respective third electrical contact location,

selected ones of the first elongated electrical conductors are interconnected with selected ones of the second contact locations, and

selected ones of the first contact locations are spaced from one another by first distances, and selected ones of the second elongated electrical conductors have second ends, remotely located from the first ends thereof, which are spaced from one another by second distances.

³¹⁹
~~320.~~ (Added) A space transformer, according to claim ³¹⁸~~319~~, wherein:

the first substrate is a printed circuit board.

~~319~~

~~321.~~ (Added) A space transformer, according to claim ~~319~~, wherein:

selected ones of the second electrical contact locations and selected ones of the third electrical contact locations are electrically interconnected by electrically conductive vias.

~~320~~

~~322.~~ (Added) A space transformer, according to claim ~~319~~, wherein selected ones of the first flexible elongated electrical conductors comprise:

a flexible elongate core element having a first end and a second end and formed of a readily-shaped material;

an electrically conductive coating, formed of a layer of conductive material disposed on the elongate core element.

~~321~~

~~323.~~ (Added) A space transformer, according to claim ~~322~~, wherein:

the flexible elongate core element is selected from the group consisting of:

palladium, gold alloy, copper alloy, gold, aluminum, copper, silver, nickel and combinations thereof.

~~322~~

~~324.~~ (Added) A space transformer, according to claim ~~322~~, wherein:

the flexible elongate core element has a diameter in the range of from 1 to 5 mils.

~~323~~

~~325.~~ (Added) A space transformer, according to claim ~~324~~, wherein:

the flexible elongate core element is a wire.

~~324~~
~~326.~~ (Added) A space transformer, according to claim ~~322~~³²⁰, wherein:

the flexible elongate core element has a length of about 40 mils.

~~325~~
~~327.~~ (Added) A space transformer, according to claim ~~322~~³²⁰, wherein:

the electrically conductive coating comprising a material selected from the group consisting of Au, Cr, Co, Ni and Pd.

~~326~~
~~328.~~ (Added) A space transformer, according to claim ~~322~~³²⁰, wherein:

the electrically conductive coating comprises nickel and cobalt.

~~327~~
~~329.~~ (Added) A space transformer, according to claim ~~322~~³²⁰, wherein:

the electrically conductive coating comprises a coating selected from the group consisting of nickel, cobalt, chromium, gold and palladium.

~~328~~
~~330.~~ (Added) A space transformer, according to claim ~~322~~³²⁰, wherein:

the electrically conductive coating is formed of a material selected from nickel, cobalt, chromium and gold.

~~329~~
~~331.~~ (Added) A space transformer, according to claim ~~322~~³²⁰, wherein:

the electrically conductive coating is a coating selected from the group consisting of an electroplated coating, an electrolessly plated coating, a sputtered coating and an e-beam evaporated coating.

~~330~~

332. (Added) A space transformer, according to claim ~~331~~³⁴⁹, wherein:

the electrically conductive coating is a thin layer.

~~331~~

333. (Added) A space transformer, according to claim ~~319~~³¹⁸, wherein:

the substrate is a multi-layer interconnection substrate.

~~332~~

334. (Added) A space transformer, according to claim ~~319~~³¹⁸, wherein:

the first substrate comprises a dielectric material comprising a plurality of elongated electrical conductors embedded therein; and

a plurality of first ends of which comprise the first plurality of electrical conductors.

~~333~~

335. (Added) A space transformer comprising:

a first substrate comprising on one side thereof first elongated electrical conductors, each having an elongate flexible shape and a respective first end disposed at the one side thereof, and extending therefrom;

a second substrate provided with second electrical contact locations on one side thereof and third electrical contact locations on an opposite side thereof;

the second contact locations facing the first contact locations and each first elongated electrical conductor having a respective second end connected to a respective one of the second electrical contact locations, the second substrate being disassembleable from the first substrate; and

second elongated electrical conductors, each having an elongate flexible shape and a respective first end connected to a respective third electrical contact location of said third electrical contact locations and extending from the respective third electrical contact location,

selected ones of the first elongated electrical conductors are interconnected with selected ones of the second contact locations, and

selected ones of the first contact locations are spaced from one another by first distances, and selected ones of the second elongated electrical conductors have second ends, remotely located from the first ends thereof, which are spaced from one another by second distances.

334 336. (Added) A space transformer, according to claim 318, wherein the second distance is different than the first distance.

335 337. (Added) A space transformer, according to claim 318, wherein the second substrate is a printed circuit card.

336 338. (Added) A space transformer, according to claim 335, wherein:

the first substrate comprises a dielectric material comprising a plurality of elongated electrical conductors embedded therein;

a plurality of first ends of which comprise the first plurality of electrical conductors.

337 339. (Added) A space transformer, according to claim 333, wherein:

the first substrate is a printed circuit board.

~~338~~
340. (Added) A space transformer, according to claim ~~332~~
~~335~~, wherein:

selected ones of the second electrical contact locations and selected ones of the third electrical contact locations are electrically interconnected by electrically conductive vias.

~~339~~
341. (Added) A space transformer, according to claim ~~334~~
~~336~~, wherein selected ones of the first flexible elongated electrical conductors comprise:

a flexible elongate core element having a first end and a second end and formed of a readily-shaped material;

an electrically conductive coating, formed of a layer of conductive material disposed on the elongate core element.

~~340~~
342. (Added) A space transformer, according to claim ~~339~~
~~341~~, wherein:

the flexible elongate core element is selected from the group consisting of:

palladium, gold alloy, copper alloy, gold, aluminum, copper, silver, nickel and combinations thereof.

~~341~~
343. (Added) A space transformer, according to claim ~~339~~
~~341~~, wherein:

the flexible elongate core element has a diameter in the range of from 1 to 5 mils.

~~342~~
344. (Added) A space transformer, according to claim ~~341~~
~~343~~, wherein:

the flexible elongate core element is a wire.

~~343~~
345. (Added) A space transformer, according to claim ~~340~~³³⁸, wherein:

the flexible elongate core element has a length of about 40 mils.

~~344~~
346. (Added) A space transformer, according to claim ~~341~~³⁵⁴, wherein:

the electrically conductive coating comprising a material selected from the group consisting of Au, Cr, Co, Ni and Pd.

~~345~~
347. (Added) A space transformer, according to claim ~~341~~³³⁹, wherein:

the electrically conductive coating comprises nickel and cobalt.

~~346~~
348. (Added) A space transformer, according to claim ~~341~~³³⁹, wherein:

the electrically conductive coating comprises a coating selected from the group consisting of nickel, cobalt, chromium, gold and palladium.

~~347~~
349. (Added) A space transformer, according to claim ~~341~~³³⁹, wherein:

the electrically conductive coating is formed of a material selected from nickel, cobalt, chromium and gold.

~~348~~
350. (Added) A space transformer, according to claim ~~341~~³³⁹, wherein:

the electrically conductive coating is a coating selected from the group consisting of an electroplated coating, an electrolessly plated coating, a sputtered coating and an e-beam evaporated coating.

~~349~~
351. (Added) A space transformer, according to claim ~~350~~³⁴⁸, wherein:

the electrically conductive coating is a thin layer.

~~350~~
352. (Added) A space transformer, according to claim ~~336~~³³⁴, wherein:

the substrate is a multi-layer interconnection substrate.

~~351~~
353. (Added) A space transformer, according to claim ~~335~~³³², wherein:

the first distance is different that the second distance.

~~352~~
354. (Added) A space transformer, according to claim ~~335~~³³², wherein:

the second substrate is a printed circuit card.

~~353~~
355. (Added) A structure comprising:

a first substrate comprising a surface and a plurality of first elongated flexible electrical conductors extending from locations at the surface;

a second substrate comprising first electrical contact locations on one side thereof and second contact locations on an opposite side thereof;

the first contact location facing the surface of the first substrate, and each first elongated flexible electrical conductor of the first substrate have an end electrically connected to a first contact location, the second substrate being disassembleable from the first substrate, and second elongated flexible conductors having a first end electrically connected to a second contact location and extending away therefrom;

selected ones of the first elongated electrical conductors are electrically interconnected with selected ones of the first contact locations;

the first contact locations are spaced apart from one another by a first distance, the second contact locations are spaced apart from one another by a second distance.

~~354~~
356. (Added) A structure, according to claim ~~353~~ 355, wherein:

the second distance is different than the first distance.

~~355~~
357. (Added) A structure, according to claim ~~353~~ 355, wherein:

the second substrate is a printed circuit card.

~~356~~
358. (Added) A structure, according to claim ~~353~~ 355, wherein:

the first substrate comprises a dielectric material comprising the first plurality of elongated electrical conductors embedded therein;

a plurality of first ends of which comprise the first plurality of electrical conductors.

~~357~~
359. (Added) A structure, according to claim ~~353~~ 355, wherein:

the first substrate is a printed circuit board.

~~358~~
360. (Added) A structure, according to claim ~~353~~ 355, wherein:

selected ones of the first electrical contact locations and selected ones of the second electrical contact locations are electrically interconnected by electrically conductive vias.

~~359~~

~~361.~~ (Added) A structure, according to claim ~~355~~, wherein selected ones of the first flexible elongated electrical conductors comprise:

~~353~~

a flexible elongate core element having a first end and a second end and formed of a readily-shaped material;

an electrically conductive coating, formed of a layer of conductive material disposed on the elongate core element.

~~360~~

~~362.~~ (Added) A structure, according to claim ~~361~~, wherein:

~~359~~

the flexible elongate core element is selected from the group consisting of:

palladium, gold alloy, copper alloy, gold, aluminum, copper, silver, nickel and combinations thereof.

~~361~~

~~363.~~ (Added) A structure, according to claim ~~364~~, wherein:

~~359~~

the flexible elongate core element has a diameter in the range of from 1 to 5 mils.

~~362~~

~~364.~~ (Added) A structure, according to claim ~~363~~, wherein:

~~361~~

the flexible elongate core element is a wire.

~~363~~

~~365.~~ (Added) A structure, according to claim ~~361~~, wherein:

~~359~~

the flexible elongate core element has a length of about 40 mils.

~~364~~
~~366.~~ (Added) A structure, according to claim ~~361~~³⁵⁹, wherein:

the electrically conductive coating comprising a material selected from the group consisting of Au, Cr, Co, Ni and Pd.

~~365~~
~~367.~~ (Added) A structure, according to claim ~~361~~³⁵⁹, wherein:

the electrically conductive coating comprises nickel and cobalt.

~~366~~
~~368.~~ (Added) A structure, according to claim ~~361~~³⁵⁹, wherein:

the electrically conductive coating comprises a coating selected from the group consisting of nickel, cobalt, chromium, gold and palladium.

~~367~~
~~369.~~ (Added) A structure, according to claim ~~361~~³⁵⁹, wherein:

the electrically conductive coating is formed of a material selected from nickel, cobalt, chromium and gold.

~~368~~
~~370.~~ (Added) A structure, according to claim ~~361~~³⁵⁹, wherein:

the electrically conductive coating is a coating selected from the group consisting of an electroplated coating, an electrolessly plated coating, a sputtered coating and an e-beam evaporated coating.

~~369~~
~~371.~~ (Added) A structure, according to claim ~~370~~³⁶⁸, wherein:

the electrically conductive coating is a thin layer.